

## WHAT IS CLAIMED:

1. A flashlight assembly comprising:

a housing having a bottom wall and a side wall extending upwardly from said bottom wall, an electrically conductive path extending from said bottom wall upwardly along said side wall and a threaded opening opposite said bottom wall;

a battery having a first contact and a second contact said battery received within said housing wherein said first contact is in electrical communication with electrically conductive path;

a flashlight head, said flashlight head including,

a tubular enclosure having a side wall, and an end wall, wherein inner surfaces of said end wall and said side wall cooperate to define said tubular enclosure having an open end, said end wall having at least one inwardly extending aperture,

a mounting board received in said open end of said enclosure, and

at least one LED mounted on said inner surface said mounting board having first and second contact leads, said first contact lead in electrical communication with said first contact of said battery, said at least one LED being slideably received within said at least one aperture in said end wall; and

a switch assembly disposed between said second contact lead of said LED and said second contact of said battery, said switch assembly being operable to selectively energize said lighting element.

2. The flashlight assembly of claim 1, wherein said at least one aperture in said end wall includes aperture walls that are inwardly tapered.
3. The flashlight assembly of claim 1, wherein said at least one aperture in said end wall is a reflector cup.
4. The flashlight assembly of claim 1, further comprising:  
a plurality of LED's mounted on said mounting board, said end wall including a like plurality of inwardly extending apertures to slideably receive said plurality of LED's.
5. The flashlight assembly of claim 4, wherein said plurality of apertures in said end wall each include aperture walls that are inwardly tapered.
6. The flashlight assembly of claim 5, wherein said plurality of LED's are arranged in a circular array and said plurality of apertures in said end wall are also arranged in a circular array corresponding to said circular array of LED's.
7. The flashlight assembly of claim 4, wherein said plurality of apertures in said end wall are a plurality of reflector cups.
8. The flashlight assembly of claim 7, wherein said plurality of LED's are

arranged in a circular array and said plurality of apertures in said end wall are also arranged in a circular array corresponding to said circular array of LED's.

9. The flashlight assembly of claim 1, wherein said mounting board comprises a circuit board having contact leads thereon, and further wherein said at least one LED includes spaced leads that are mounted on said circuit board in electrical communication with said contact leads.

10. The flashlight assembly of claim 1 further comprising:

an inner surface on said mounting board and said inner surfaces of said mounting board, said side wall and said end wall cooperate to define a substantially enclosed interior cavity within said tubular enclosure; and

a sealant substantially entirely filling said enclosed interior cavity, such that contaminants cannot enter into said enclosed interior cavity through said at least one aperture in said end wall.

11. A lensless flashlight assembly, comprising:

a housing having a closed end and an open end;

an electrical power source in the housing;

a plurality of light emitting diodes electrically connected to the power source;

and

a plurality of individual reflector cups corresponding to said plurality of light emitting diodes, said plurality of light emitting diodes being individually seated within

said reflector cups.

12. The flashlight assembly of claim 11, wherein said plurality of light emitting diodes and said plurality of reflector cups are arranged in a circular array.

13. The flashlight assembly of claim 11, further comprising:

a mounting board, said plurality of light emitting diodes seated in said plurality of reflector cups being mounted on said mounting board.

14. The flashlight assembly of claim 13, wherein said mounting board comprises a circuit board having contact leads thereon, and further wherein each of said plurality of light emitting diodes include spaced leads that are mounted on said circuit board in electrical communication with said contact leads.

15. An LED flashlight comprising:

a tubular housing having a bottom wall and a side wall extending upwardly from said bottom wall;

a battery having a first contact and a second contact said battery received within said housing;

a flashlight head connected to said tubular housing opposite said bottom wall, said flashlight head including,

a tubular side wall having an inner and outer surface,

an end wall having an inner and outer surface, wherein said inner surfaces of said end wall and said side wall cooperate to define an open end of said enclosure and said outer surfaces of said end wall and said side wall cooperate to form an outer surface of said assembly, and

at least one inwardly extending bore in said end wall, said bore having a side wall which is integrally merged with said outer surface of said end wall,

a mounting board received in said open end of said enclosure, said mounting board having electrical contacts thereon, said contacts in electrical communication with said first and second battery contacts, and

at least one LED mounted on said mounting board, said at least one LED being slideably received within said at least one bore in said end wall such that said LED is exposed to the exterior environment surrounding said assembly; and

a switch assembly disposed between one of said battery contacts and one of said electrical contacts on said mounting boards, said switch assembly being operable to selectively energize said LED.

16. The LED flashlight of claim 15, wherein said side wall of said at least one bore is inwardly tapered.

17. The LED flashlight of claim 15, further comprising:

a plurality of LED's mounted on said mounting board, said end wall including a like plurality of inwardly extending bores to slideably receive said plurality of LED's.

18. The LED flashlight of claim 17, wherein said plurality of LED's are arranged in a circular array and said plurality of bores in said end wall are also arranged in a circular array corresponding to said circular array of LED's.

19. The LED flashlight of claim 15, wherein said mounting board comprises a circuit board having contact leads thereon, and further wherein said at least one LED includes spaced leads that are mounted on said circuit board in electrical communication with said contact leads.

20. The LED flashlight of claim 15 further comprising:

an inner surface on said mounting board and said inner surfaces of said mounting board, said side wall and said end wall cooperate to define a substantially enclosed interior cavity within said tubular enclosure; and

a sealant substantially entirely filling said enclosed interior cavity, such that contaminants cannot enter into said enclosed interior cavity through said at least one bore in said end wall.